I-Smile

The Iowa Dental Home Proposal

3/2/06

I-SMILE EXECUTIVE SUMMARY

Background	Iowa House File 841 states: *By July 1, 2008, every Medicaid recipient who is a child 12 years of age or less must have a designated dental home.*
Rationale	Less than 45 percent of all children enrolled in Medicaid have a dental visit during a year. Low-income children are most at-risk for severe and untreated decay. Treatment of severe decay for children ages birth to three often requires hospitalization and costs can range from $2,000-$5,000. Tooth decay can be prevented; prevention must begin at an early age. Early access to preventive dental services for children has shown significant cost savings compared to delayed access in later years.
Dental Home	The American Academy of Pediatric Dentistry's definition of a dental home is the conceptual framework in this proposal. The I-Smile proposal consists of a dentist, supported by a network of dental and non-dental public and private healthcare providers providing preventive and care coordination services. These services include screenings, preventive therapies, education, and referrals for dental treatment by a dentist.
Current Obstacles	There are an insufficient number of practicing dentists in Iowa, particularly in lower-income and rural parts of the state—79 counties are estimated to be designated dental shortage areas. Many dental practices are very busy and do not accept *any* new patients, especially if patients cannot pay at current market rates. The majority of general practice dentists are uncomfortable or unwilling to see children under age three. Dentists are reluctant to accept Medicaid-enrolled patients due to low reimbursement and poor dental appointment compliance issues. Enrollment of children into the Medicaid program is increasing at an average rate of 1 percent per month.

I-SMILE PROPOSAL

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<tr>
<td>Improve the Dental Support System for Families</td>
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Medicaid-enrolled children and families need assistance receiving timely oral health care and locating dentists who will treat children in Medicaid. Strategies to support families in accessing a dental home for their Medicaid-enrolled children include:

Strengthening the dental infrastructure of local Title V Child Health agencies to focus on children’s oral health and provide oral health care coordination,
Improving care coordination through improving data tracking systems,
Using dental hygienists as oral health coordinators within Child Health agencies for preventive care, education, care coordination, and referrals to dentists,
Increasing oral health education for families,
Providing trainings for dental providers about care for children under age three,
Training non-dental healthcare providers, such as physicians and nurses, to provide screenings, fluoride varnish applications, education, and referrals to dentists,
Partnering with WIC, Head Start, Migrant and Community Health Centers, Iowa’s hospital health systems and other programs, and
Purchasing portable dental equipment for on-site use in facilities such as Head Start.

Provide funding to local Title V Child Health (CH) agencies to increase dental program infrastructure
Cost: $1,279,430 (See Appendix I)

Increase funding to strengthen the state Title V CH database system for tracking patient care coordination and appointments
Cost: $210,000 (See Appendix IV)

Fund public oral health education and promotions
Cost: $1,044,855 (See Appendix III)

Fund training programs and create mandatory continuing education requirements for dental and other healthcare providers regarding children’s oral health
Cost: $120,000 (See Appendix III)

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<td>Improve the Dental Medicaid Program</td>
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Dentist participation in Medicaid is limited, impacting access to dental services for Medicaid-enrolled children. Strategies to improve the dental Medicaid program include:

Creating a network of dentists willing to see Medicaid-enrolled children through use of a familiar dental insurance carrier with increased reimbursement rates
Reimbursing non-dental providers for providing screening and fluoride varnish to children in settings beyond a dental office, and
Reinstating periodontal (gum) treatment coverage for adults, especially pregnant women and new mothers, whose oral health can affect the oral health of their child

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	through transmission of oral bacteria. ■ Contract with a familiar dental insurance carrier to improve dentist participation in Medicaid, similar to a successful program in Michigan ■ Cost: Delta Dental/hawk-i equivalent network**: $28.8 million** (*See Appendix IV*) ■ Create a dental screening code and specific reimbursement for physicians ■ Cost: **$ 3,529,230** (*See Appendix IV*) **includes current annual Medicaid EPSDT exam oral screening and physician fluoride varnish payments* ■ Allow reimbursement for oral screening and fluoride application by non-dental providers ■ Cost: **$0** – Medicaid Administrative Rules Change (*See Appendix III*) ■ Reinstate coverage of periodontal services to adult dental Medicaid enrollees ■ Cost**: $276,000** (*See Appendix IV*)
Implement Recruitment and Retention Strategies for Underserved Areas	The shortage of dental providers in 79 Iowa counties decreases the ability of Medicaid-enrolled children to receive dental services. The strategy is to increase the number of dentists and hygienists in underserved counties include creating loan repayment options for dental and dental hygiene program graduates that practice in rural and dental workforce shortage areas. ■ Create a dentist/dental hygienist student-loan repayment program to increase the dental workforce in shortage areas ■ Cost: **$250,000** (*See Appendix V*)
Integrate Dental Services Into Rural and Critical Access Hospitals	Dental services in rural and underserved areas can be bolstered through the use of rural hospitals, especially for care by pediatric dentists in an operating room for severe early childhood caries (baby bottle tooth decay). The strategy is to use rural hospitals in Iowa's health network systems to increase dental clinic capacity and the availability of primary care services to rural underserved communities ■ Work with rural hospitals to develop dental clinics ■ Cost: **$0**-No cost to the state. (*See Appendix V*)

I-SMILE: ANTICIPATED OUTCOMES

- An integrated dental service delivery system that delivers adequate early identification of disease risk, prevention and dental care
- An oral health care coordination network that assures Medicaid-enrolled children receive appropriate oral health care services
- A guaranteed dental provider network that assures an appropriate level of dental care access for Medicaid enrolled children
- A tracking and monitoring system to regulate outcomes and quality of care within the dental home system
- Intensive family-based oral health education to strengthen parental oversight of children's home care and increase prevention opportunities
- Sufficient oral health education opportunities for health care providers to ensure adequate knowledge to meet the oral health needs of young children
- Recruitment and retention of an adequate number of new dentists and dental hygienists in underserved rural communities
- A decrease in overall dental disease rates among participating Medicaid-enrolled children with subsequent cost savings for the state

To allow sufficient continuity in the I-Smile dental home program and to observe impact on cost and disease rates, **a minimum of five years of program implementation and fiscal support is recommended.**

I-Smile: A Dental Home For Medicaid-Enrolled Children

BACKGROUND

On May 12, 2005, Governor Vilsack signed HF841 into law, establishing the IowaCare Act. The bill includes the following language:

> *DENTAL HOME FOR CHILDREN. By July 1, 2008, every recipient of medical assistance who is a child twelve years of age or younger shall have a designated dental home and shall be provided with the dental screenings and preventive care identified in the oral health standards under the early and periodic screening, diagnostic, and treatment program.*

The Iowa Department of Human Services is charged with developing a plan to meet the intent of this legislation. This I-Smile Dental Home Proposal is the result of collaborative discussions between representatives of the Iowa Department of Human Services, the Iowa Department of Public Health, the University of Iowa College of Dentistry and Public Policy Center, the Iowa Dental Association, Delta Dental Plan of Iowa, the Iowa Dental Hygienists' Association, the University of Iowa Child Health Specialty Clinics, and other interested parties. The I-Smile Dental Home Proposal provides a comprehensive approach to providing a dental home for all children in Medicaid ages 0-12.

RATIONALE

- Less than 45 percent of all children enrolled in Medicaid have a dental visit during a year[1].
- Low-income children are most at-risk for severe and untreated decay.[2]
- Treatment of severe decay for children ages birth to three often requires hospitalization and costs can range from $2,000-$5,000.[3]
- Tooth decay can be prevented; prevention must begin at an early age.
- Early access to preventive dental services for children has shown significant cost savings compared to delayed access in later years.[4]
- In SFY 2005, there were 164,965 children six months through 12 years of age enrolled in Iowa Medicaid.[5]
- Of these, just 55,825 (34 percent) received a dental examination from a dentist. [6]
- In SFY 2005, 1,464 Medicaid-enrolled children were hospitalized or received general anesthesia for advanced dental treatment. Over 528 of these children were between the ages of one and three. [7]
- In SFY 2005, the total Medicaid expenditures for all dental services provided to children age 12 and under were $13,799,863. [8]
- Of that amount, only $1,147,176 (8 percent) was for preventive screenings, fluoride varnish and/or sealants provided through local maternal and child health agencies and/or physicians. [9]

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[1] CMS 4.16 report
[2] http://www.cdc.gov/OralHealth/factsheets/dental_caries.htm (Accessed February, 2006)
[3] Iowa Medicaid Enterprise dental hospitalization cost report 2005
[4] Savage, Matthew F. et al. "Early Preventive Dental Visits: Effects on Subsequent Utilization and Costs." PEDIATRICS Vol. 114 No.4 October 2004, pp.e418-e423
[5] Iowa Department of Human Services
[6] Iowa Department of Human Services
[7] Iowa Department of Human Services
[8] Iowa Department of Human Services

- Once very young children have severe decay, they often require more expensive treatment – often in a hospital. These children are likely to be seen in a medical office or public health clinic before being seen in a dental office, indicating the need to educate non-dental healthcare workers about preventive dental care.

THE DENTAL HOME

The ultimate goal of creating a dental home for all Medicaid-enrolled children, 0-12 years old, is to ensure they receive age-appropriate comprehensive dental care. The American Academy of Pediatric Dentistry's (AAPD) definition of a Dental Home[10] is the conceptual framework for the I-Smile Dental Home Proposal.

According to the AAPD, "The dental home is inclusive of all aspects of oral health that result from the interaction of the patient, parents, non-dental professionals and dental professionals. Establishment of the dental home is initiated by the identification and interaction of these individuals, resulting in a heightened awareness of all issues impacting the patient's oral health."

The AAPD further states that "Children who have a dental home are more likely to receive appropriate preventive and routine oral health care. Referral by the primary care physician or health provider has been recommended, based on risk assessment, as early as six months of age, six months after the first tooth erupts, and no later than 12 months of age. Furthermore, subsequent periodicity of reappointment is based upon risk assessment."

A dental home provides:
- Acute care and preventive services
- Assessment of oral diseases
- Individualized preventive care based on risk assessment
- Anticipatory guidance about growth and development
- A plan for dental trauma
- Information about proper care of teeth and gums
- Dietary counseling
- Referrals to dental specialists

Age-appropriate care has been specified in a reference manual from the AAPD titled "Clinical Guidelines on Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance and Oral Treatment of Children." [11]

CURRENT OBSTACLES

While it would be ideal for all children, especially Medicaid-enrolled children, to see a dentist by age one, there are many reasons why this goal is difficult, if not impossible, to attain. Some of the reasons are related to the overall dental delivery system in Iowa and others are specific to perceived problems with the Medicaid program.

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[9] Iowa Department of Human Services
[10] http://www.aapd.org/media/Policies_Guidelines/P_DentalHome.pdf
[11] http://www.aapd.org/media/Policies_Guidelines/G_Periodicity.pdf

- There is a shortage of dentists in many parts of the state. According to the Iowa Department of Public Health, 72 of Iowa's 99 counties were designated as Dental Health Profession Shortage Areas (DHPSAs) in year 2001. Current estimates now raise this to 79 counties.

- Many dental practices are very busy - working at capacity - and are unable to accept *any* new patients. This is due in part to both the overall shortage of dentists and the influx of new procedures into dentistry (e.g. cosmetic).

- Many dentists are uncomfortable or unwilling to see children younger than three years of age. Procedures for very young children are different and can be more difficult to complete than for older patients.

- Many dental offices do not accept Medicaid-enrolled children. The low reimbursement for services, administrative difficulties, and poor patient compliance are often cited by dentists as reasons for not participating in the Medicaid program.

- Elimination of coverage for some dental procedures for Medicaid-enrolled adults affects parents', particularly mothers', ability to keep children's mouths healthy. Poor pregnancy outcomes and transmission of decay-causing bacteria are linked to mothers with poor oral health.

Improvements to the Dental Support System for Families

Provide funding to local Title V Child Health (CH) agencies[12] to increase dental program infrastructure

- The main component of building the capacity of CH agencies will be providing each agency with the **resources to establish a dental hygienist as the oral health coordinator.** Although agencies are able to bill Medicaid for preventive services provided by a dental hygienist, the funds are usually not sufficient to initiate or sustain a program.
- Few CH agencies have portable dental equipment. However, having this equipment can be particularly helpful for providing preventive and restorative dental services for at-risk and hard-to-reach populations (e.g., at Head Start or WIC centers using a local dentist to provide the care on-site). **Resources are needed to purchase portable dental equipment** to provide care in non-traditional settings.

Estimated Cost: $1,279,430 (*See Appendix I*)

Increase funding to strengthen the state Title V CH database system for tracking patient care coordination and appointments

- Local child health agencies use the Child and Adolescent Reporting System (CAReS) for tracking child health needs and services. The current **CAReS system will require modifications** to allow effective care coordination and tracking of all dental services provided for children enrolled in Medicaid.
- As the dental home network develops, non-dental providers will need to know where they can refer children for treatment once a child is screened and preventive therapies are applied. The **development of an Internet database of all participating dentists** and the type of care they can provide will greatly assist the referral process.

Estimated Cost: $210,000 (*See Appendix IV*)

Fund public oral health education and promotions

- Oral health promotions and improved oral health knowledge among at-risk populations is part of the solution to empowering families and reducing disease rates. An oral health education campaign would be conducted, based on a successful model used by the Iowa Department of Public Health for smoking cessation. A comprehensive plan to potentially decrease healthcare costs must **include a budget for oral health promotions and outreach activities**.

Estimated Cost: $1,044,855 (*See Appendix III*)

Fund training programs for dental and other healthcare providers regarding children's oral health

- It will be important to **increase training opportunities for the public health workforce and dental providers** regarding dental disease prevention, treatment, evidence-based practices, education, parental guidance and oral health promotions for children, particularly those under age three. Many dental providers are not sufficiently trained or have limited experience with managing very young children below age three or children with disabilities. In addition, medical professionals receive very limited training about oral health.

Estimated Cost: $120,000 (*See Appendix III*)

[12] As the designated administrator for Title V maternal and child health services, The Iowa Department of Public Health (IDPH) contracts with 24 public health agencies to coordinate community-based health services in all 99 counties. These services include informing, care coordination and child health screening services in accordance with the state's Early and Periodic Screening, Diagnosis and Treatment (EPSDT) periodicity schedule.

Improvements to the Dental Medicaid Program

Create a program using a familiar dental insurance carrier with increased reimbursement rates for dentists

- In order to improve provider participation, the I-Smile proposal recommends **using a known private insurance carrier (Delta Dental) for Medicaid dental services.** This is similar to Iowa's current ***hawk-i*** dental program that has a Delta Dental component, (although there could be no annual maximum in Medicaid as there is in ***hawk-i***). Dental utilization was 9% higher for children enrolled for 11-12 months in ***hawk-i*** than in the Iowa Medicaid program in 2001. To encourage acceptance of referrals, reimbursement rates to dentists may be higher when treating children referred from the oral health coordinator.

  Estimated Cost: Delta Dental/hawk-i equivalent $28.8 Million (*See Appendix IV*)

Create a dental screening code and specific reimbursement for physicians

- At this time, physicians are not reimbursed for a dental screening. **Assigning a separate procedure code and fee for oral screenings by physicians** would increase compliance with the Early Periodic Screening Diagnosis and Treatment (EPSDT) requirements of an oral health screening for children ages 0 – 5, as well as provide a more accurate count of children who are receiving screenings and preventive therapies. Physician-based dental screenings has proven very effective in other states and has increased access to dental prevention services.[13]

  Estimated Cost: $3,529,230 **includes current annual Medicaid EPSDT exam oral screening and physician fluoride varnish payments* (*See Appendix IV*)

Develop specific codes and reimbursement for oral screening and fluoride application by non-dental providers

- **Allowing Medicaid reimbursement to non-dental providers for specific preventive services** would also be beneficial. Currently, services provided by dental hygienists working for CH agencies can be billed to Medicaid. Extending this provision to nurses, physician's assistants, and nurse practitioners would enhance the number of children benefiting from preventive care and increase the available workforce to address oral health prevention.

  Estimated Cost: $0 – Medicaid Administrative Rules Change (*See Appendix III*)

Reinstate coverage of periodontal services to adult dental Medicaid

- Reinstatement of periodontal services for Medicaid-enrolled adults has multiple benefits. The oral health experience of a mother closely mirrors the experience of the child. A mother's ability to access treatment of periodontal disease, in addition to preventive and restorative dental care, will impact the health of her child[14] [15]. In addition, children and adults with disabilities are impacted by loss of coverage. Many of these patients require hospitalization for restorations, and the level of poor oral hygiene prohibits proper care without removal of accumulated tartar and calculus. The lack of periodontal coverage prohibits appropriate care for these disadvantaged patients.

  Estimated Cost: $276,000 (*See Appendix IV*)

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[13] Pierce, Kate M., Rozier, R.Gary, and Vann Jr. William F. "Accuracy of Pediatric Primary Care Providers' Screenings and Referral for Early Childhood Caries." PEDIATRICS Vol. 109 No.5 May 2002, pp.e82

[14] Jeffcoat MK, et al. Periodontal Disease and Preterm Birth: Results of Pilot Intervention Study. Journal of Periodontology August 2003 (Vol 74, No 8).

[15] Tanzer J, Livingston J, Thompson A. The Microbiology of Primary Dental Caries. http://www.nidcr.nih.gov/NR/rdonlyres/73FABD84-9B93-461C-934F-21E2698D8A77/0/Jason_Tanzer.pdf.

Implementation of Recruitment and Retention Strategies

Create a dentist/dental hygienist student-loan repayment program to increase dental workforce in shortage areas

- Increasing the number of dental providers in shortage areas across the state must become a priority in order to achieve a sufficient oral health network. Strictly increasing dental and dental hygiene school enrollments is ineffective without also increasing Iowa's retention of program graduates and locating these graduates in Iowa's health professional shortage areas. The I-Smile proposal recommends **establishing a state dental and dental hygiene student loan repayment program and/ or Iowa college graduate dental and dental hygiene education scholarship fund.**
  Estimated Cost: $250,000 (*See Appendix V*)

Integration of Dental Services into Rural Hospitals

Work with rural health system hospitals to determine their ability to create dental clinics and increase operating room services for children's dental services

- Using space within existing rural hospitals for dental services provides an opportunity to improve access in some of Iowa's most underserved areas. In cooperation with Mercy and Iowa Health Systems, dental services will be incorporated into existing space in rural and critical access hospitals in underserved rural communities. The health systems will assist in funding and site development as part of their commitment to primary health care integration in rural Iowa.
  Estimated Cost: $0 (*See Appendix V*)

CONCLUSIONS

The I-Smile Dental Home Proposal attempts to develop a coordinated service delivery system. This system includes prevention, education, hospital primary care dental integration, and oral health promotions; multiple providers to screen, prevent disease, and refer to dentists; and maximized efficiency of the available workforce. Ultimately, at-risk children who are currently excluded from the dental care delivery system will be reached and will have a dental home.

I-Smile is a concept drawn from several state "best-practice" model programs including Washington State's "ABCD"[16], North Carolina's "In the Mouth of Babes,"[17] and Michigan's "Healthy Kids Dental."[18] Each of these programs has demonstrated that capacity-building and early prevention can be accomplished through integrating health care systems. This is further improved when these programs are combined for optimum efficiency. Iowa has demonstrated through its own Access to Baby and Child Dentistry (ABCD) community-based project that the ABCD model can empower communities to address the oral health needs of children in effective and innovative methods.[19]

[16] http://www.abcd-dental.org/pdfs/UW_ABCD_Yakima_Eval.pdf (Accessed February 2006)
[17] http://www.ncafp.com/site3/web/imb/index.html (Accessed February, 2006)
[18] http://www.uic.edu/sph/ichws/mi%20hkd%20jm.pdf (Accessed February, 2006)
[19] IDPH Oral Health Bureau, ABCD Manual, 2005

To allow sufficient continuity in the I-Smile dental home program and to observe impact on cost and disease rates, **a minimum of five years of program implementation may be necessary**. If there is insufficient dental or other provider participation and anticipated results are not demonstrated, policies will need to be reviewed for potential changes regarding licensing, practice restriction laws, and scope of practice changes for allied mid-level dental providers.

Appendix I: Medicaid and Use of Dental Services

The use of dental services among the nation's poor and uninsured remains low[20] despite findings that such disadvantaged children are more likely to have a higher prevalence of caries and more unmet treatment needs than their higher-income counterparts.[21] According to data gathered in the National Health Interview Survey (NHIS), dental care was reported to be the most prevalent unmet health need among children. Another study indicated that about five percent of children nationally had an unmet need for dental care compared to two percent for vision or pharmaceutical services and less than two percent for medical care. This was especially true among those who lacked insurance and/or lived in low-income families.[22]

Medicaid (Title XIX) is the largest public dental insurance program in the country, with more low-income people receiving dental care through Medicaid than any other program.[23] While dental care is a required service for children in Medicaid, it is considered an optional service for adults; states can determine the types of dental services, if any, they will cover for adult enrollees.

Barriers to dental care for Medicaid enrollees have been well documented.[24] [25] [26] [27] [28] These barriers may be related specifically to aspects of the Medicaid program, such as low dentist participation resulting in part from lower reimbursement rates and perceived programmatic challenges. There are also individual factors associated with a lower income population that can delay or stop enrollees from accessing dental care, such as less understanding of the importance of preventive dental care.[29] Privately insured enrollees can face some of the same issues, such as finding a dentist who will accept their insurance and understanding the importance of preventive dental care. However, the presence of private insurance has generally been found to significantly increase access to dental care.[30]

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[20] U.S. General Accounting Office. Oral health: Factors contributing to low use of dental services by low-income populations. Washington: U.S. General Accounting Office; 2000. GAO/Health, Education and Human Services publication 00-149.

[21] Vargas CM, Crall JJ, Schneider DA. Sociodemographic distribution of pediatric dental caries: NHANES III, 1988-1994. JADA 129:1229-1238, 1998.

[22] Newacheck PW, Hughes DC, Hung YY, Stoddard, JJ. The unmet health needs of America's children. Pediatrics 105(4 pt 2): 989-997, 2000 Apr.

[23] Isman R, Isman B: Oral Health America White Paper: Access to Oral Health Services in the United States 1997 and Beyond. Chicago, IL: Oral Health America, December, 1997. Last accessed August 7, 2003 at: http://www.oralhealthamerica.org/Access%201997%20and%20Beyond-Isman.pdf

[24] US Congress, Office of Technology Assessment. Children's dental services under the Medicaid program-background paper. 1990. Washington, DC: US Government Printing Office.

[25] Damiano PC, Brown ER, Johnson JD, Scheetz JP. Factors affecting dentists' participation in a state Medicaid program. J Dent Educ 1990; 54(11): 638-43.

[26] Damiano PC, Kanellis MJ, Willard JC, Momany ET. A Report On The Iowa Title XIX Dental Program. University of Iowa, Public Policy Center, Iowa City, Iowa 1996

[27] Milgrom P, Riedy C. Survey of Medicaid child dental services in Washington State: Preparation for a marketing program. J Am Dent Assoc 1998; 129(6): 753-763.

[28] Nainar SM, Tinanoff N. Effect of Medicaid reimbursement rates on children's access to dental care. Pediatric Dent 1997; 19:315-316.

[29] Evans/McDonough Company, Inc. An analysis of attitudes about dental care among the Medicaid-eligible population in Washington state. Seattle, WA: Evans/McDonough Company, Inc., 1997.

[30] Manski, RJ, Edelstein BL, Moeller JF. The impact of insurance coverage on children's dental visits and expenditures, 1996. J Am Dent Assoc 2001; 132(8)1137-1145.

The Iowa Dental Medicaid Program

Use of dental services for children in the Iowa Medicaid program has been found to be slightly better than for children nationally, but there remains significant unmet need for dental care in Iowa. Based on an analysis of Medicaid claims data for Iowa in 2001, just 34 percent of any child enrolled during the year had a dental visit.[31] If dental utilization is defined according to the Health Plan Employer Data and Information Set (HEDIS) protocol used by the National Committee for Quality Assurance, 46 percent of children who were enrolled for 11-12 months during 2001 had a dental visit.

Through another analysis, limited to children enrolled in the Iowa Medicaid managed care programs, (excluding children enrolled through the Supplemental Security Income- program or Medically Needy Program), the utilization rates were higher and varied by age.[32] Children ages one through three had the lowest rates, increasing for children ages four through eleven and then decreasing for adolescents 12-15 and 16-18.

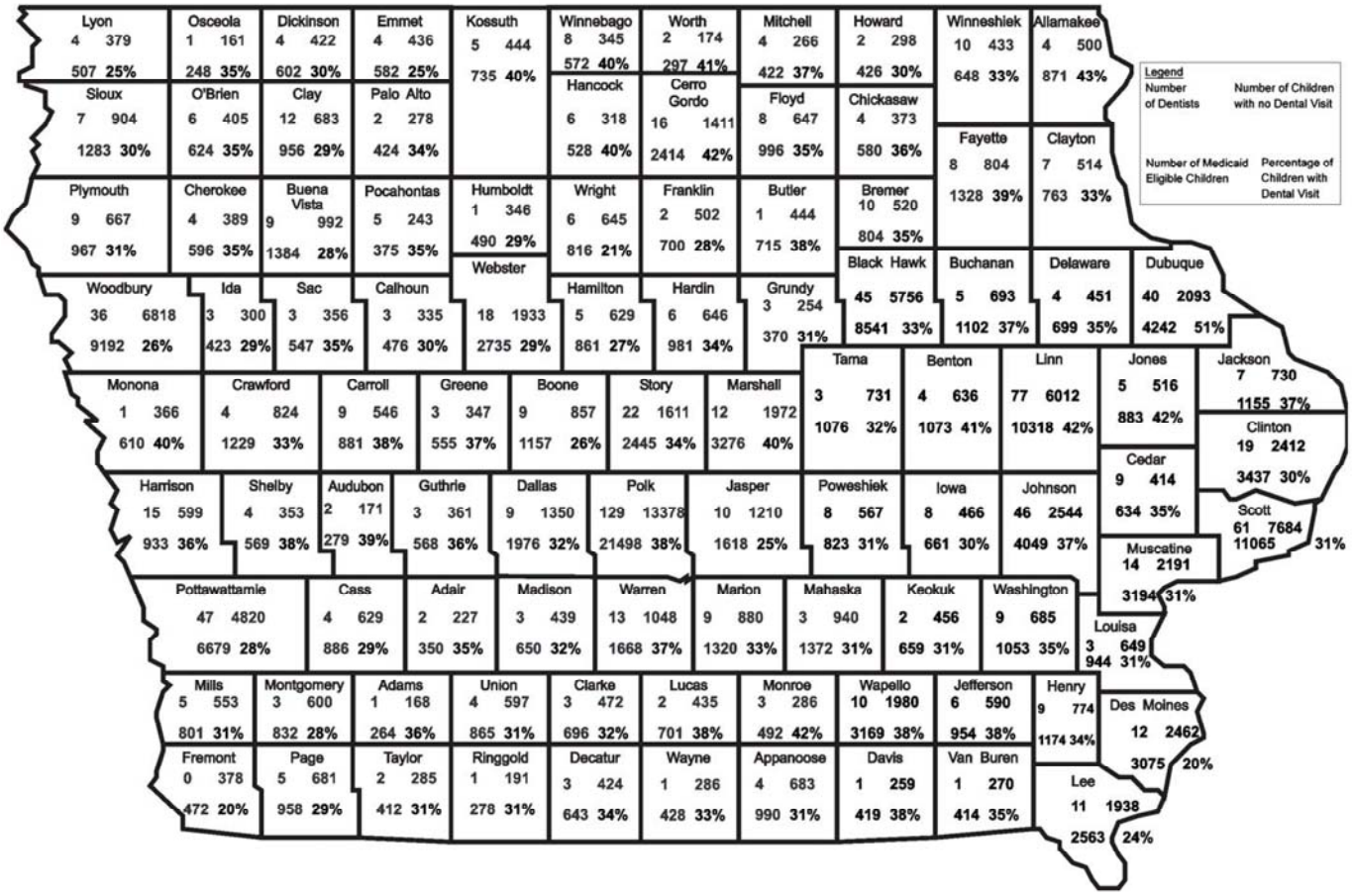
Table 1: Dental Visit Rates for Iowa Medicaid managed care enrollees, FY 2003, enrolled for 11-12 months

Age group (years)	Medicaid plan 1	Medicaid plan 2	Medicaid plan 3	MediPASS
1-3	22%	18%	21%	19%
4-6	63%	54%	57%	61%
7-11	63%	51%	58%	64%
12-15	56%	47%	51%	57%
16-18	48%	47%	46%	51%
Total	50%	43%	46%	51%

[31] Damiano PC, Momany ET, Flach SD, Jones M, Carter K. *Dental care: access, utilization and costs for children in the **hawk-i** program*. Final report to the Iowa Department of Human Services. Public Policy Center, University of Iowa, Iowa City, IA. March 2005.

[32] Momany ET, Damiano PC, Carter KD. *Outcomes of Care for Iowa Medicaid Managed Care Enrollees.* Final report to the Iowa Department of Human Services, June 2005.

The following map shows the number of dentists in each county, the number of Medicaid-enrolled children age 0-12 in each county, the number of children without a dental visit and the percentage of children without a dental visit. The Medicaid dental utilization numbers were obtained from analyses conducted by the Iowa Department of Human Services for CY 2005.



Costs to Title V agencies

Title V Child Health (CH) Agencies throughout Iowa provide a number of health related services to Medicaid and uninsured children in all 99 counties. However, these programs are minimally staffed and equipped for dental related services. The I-Smiles proposal recommends these agencies become the central care coordination, preventive dental care, and referral network for the extended dental home. In order to accomplish this, these agencies must be sufficiently staffed with dental hygienists, in addition to other improvements within their infrastructure.

Table 2, on the next page, illustrates the estimated level of increase in costs each agency will incur in order to implement the I-Smiles proposal for the Medicaid-enrolled children in their region.

- **Column One** lists each Title V Child Health Agency currently contracted with the Iowa Department of Public Health.
- **Column Two** contains the total number of Medicaid-enrolled children ages 12 and under, using FY 2005 enrollment data.
- **Column Three** shows the number of Medicaid-enrolled children that received preventive dental services from each agency in FY 2005.
- **Column Four** indicates the number of children that did not receive dental prevention services from the agencies in FY2005.
- **Column Five** uses the number of children in Column Four to determine an estimate of the amount that each agency could potentially be reimbursed by Medicaid. This represents only those children who did not receive preventive care from the CH agency, based on an estimate of $31.74 per child.
- **Column Six** also uses the number of children in Column Four to determine an estimate of the amount of additional money each agency would need in order to serve those children that did not receive preventive care. This is estimated at $9 per child, a cost that is not currently covered in reimbursable Medicaid revenue. The minimum increase for any agency will be at least 83 percent.

Each agency will be responsible for increasing staff, particularly hiring dental hygienists as oral health coordinators; adding computers; upgrading tracking software; and purchasing additional prevention related dental supplies and administrative materials. Using current Medicaid reimbursement rates to Title V agencies for dental preventive services and care coordination, it is estimated that $31.74 per child is potentially billable and at least an additional $9 cost per child would be needed that is not currently billable (used in Columns Five and Six).

The estimated cost for dental infrastructure increase for Title V agencies is $1,279,430 annually over FY 2005 Medicaid levels.

Table 2: Estimate of Additional Funds Needed for Title V CH Agencies to Provide Preventive Dental Services for Medicaid-enrolled Children

Column One	Column Two	Column Three	Column Four	Column Five	Column Six
Iowa's Local Title V CH Agencies	Number of Medicaid-enrolled children* in agency's service area	Number of Medicaid-enrolled children* who receive preventive dental services from CH agency	Medicaid-enrolled children* who do not receive preventive dental services from CH agency	Estimated potential Medicaid revenue for un-served children (Column 4)	Estimated non-billable costs for un-served children (Column 4)
Black Hawk County Health Department	10,817	1,136	9,681	$307,275	$87,129
Child Health Specialty Clinics	3,828	272	3,556	$112,867	$32,004
Community Health of Jones County	6,109	449	5,660	$179,648	$50,940
Community Health of Marion County	6,938	136	6,802	$215,895	$61,218
Community Opportunities, Inc.	5,282	237	5,045	$160,128	$45,405
Crawford County Home Health	4,227	16	4,211	$133,657	$37,989
Grinnell Mother-Child Wellness	3,813	219	3,594	$114,074	$32,346
Hawkeye Area Community Action Program	10,318	338	9,980	$316,765	$89,820
Johnson County Department of Public Health	4,710	63	4,647	$147,496	$41,823
Lee County Health Department	4,350	293	4,057	$128,769	$36,513
Matura Action Corp.	2,143	11	2,132	$67,384	$19,188
Mid-Iowa Community Action	10,008	1,372	8,636	$274,107	$77,724
Mid-Sioux Opportunities	3,776	214	3,562	$113,058	$32,058
North Iowa Community Action	7,379	1,014	6,365	$202,025	$57,285
Scott County Health Department	11,065	512	10,553	$334,952	$94,977
Siouxland Community Health Center	9,192	1,495	7,697	$244,303	$69,273
Taylor County Public Health	2,466	6	2,460	$78,080	$22,140
Unity Health System	4,138	100	4,038	$128,166	$36,342
Upper Des Moines Opportunity	5,195	313	4,882	$154,955	$43,938
VNA Dubuque	9,557	1,549	8,008	$254,174	$72,072
VNA Pottawattamie County	7,952	45	7,907	$250,968	$71,163
Visiting Nurse Services	21,498	926	20,572	$652,955	$185,148
Washington County Public Health Nursing	5,302	959	4,343	$137,847	$39,087
Webster County Public Health	4,902	30	4,872	$154,637	$43,848
TOTALS	**164,965**	**11,705**	**153,260**	**$4,864,185**	**$1,279,430**

*DHS data for FY2005, children ages 6 months through 12 years

Cost effectiveness of early preventive dental intervention

Dentistry has been a leader in promoting the prevention of disease through activities such as water fluoridation and systematic recalls for annual check-ups. There is additional evidence that the earlier a Medicaid-enrolled child has their first preventive dental visit, the less follow-up care and the lower the cost of the subsequent treatment.

In an analysis of children continuously enrolled in the North Carolina Medicaid program for five years, "children who had their first preventive dental visit by age one were more likely to have subsequent preventive visits but were not more likely to have subsequent restorative or emergency visits.[33] Those who had their first preventive visit at age two or three were more likely to have subsequent preventive, restorative, and emergency visits. The age at the first preventive dental visit had a significant positive effect on dentally related expenditures, with the average dentally related costs being less for children who received earlier preventive care. The average dentally related costs per child according to age at the first preventive visit were as follows:

- before age one, $262 dollars;
- age one to two, $339 dollars;
- age two to three, $449 dollars;
- age three to four, $492 dollars;
- age four to five, $546 dollars.

Thus they concluded "that preschool-aged, Medicaid-enrolled children who had an early preventive dental visit were more likely to use subsequent preventive services and experience lower dentally related costs."

There is very recent evidence of the efficacy of one of the primary preventive interventions that would be used in the I-Smile program, fluoride varnish therapy, in preventing very costly early childhood caries in public health settings. In a randomized control trial with young, low-income Chinese and Hispanic children in San Francisco, the receipt of fluoride varnish either once or twice per year along with preventive counseling significantly reduced early childhood caries over children who just received preventive counseling.[34]

The effectiveness of even one fluoride varnish application per year in a public health setting has very important implications for the potential of the I-Smile program to save money. Very young children (under age three) are the least likely to visit a dentist. However, applying fluoride varnish in the settings where young, Medicaid-enrolled children do frequent such as WIC clinics, physician offices and Head Start, could provide a very cost-effective way to reduce the expensive care that children with severe early childhood caries require in a hospital operating room.

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[33] Savage MF, Lee JY, Kotch JB, Vann WF Jr. Early preventive dental visits: effects on subsequent utilization and costs. Pediatrics. 2004 Oct;114(4):e418-23.

[34] Weintraub JA, Ramos-Gomez F, Jue B, Shain S, Hoover CI, Featherstone JD, Gansky SA. Fluoride Varnish Efficacy in Preventing Early Childhood Caries. J Dent Res. 2006 Feb;85(2):172-176.

Appendix II: Conceptual Model of the Dental Home

The I-Smile proposal envisions a dental home for children using different levels of care and different types of care providers. This concept considers where children are currently receiving health services; the ability of at-risk families to access health services; the levels of competency of different healthcare providers and the most effective use of those competencies; the shortage of dental providers; and the availability of a statewide public health system and care coordination network that can be upgraded to strengthen the limitations within the current oral health care system.

Local public health programs are highly effective in increasing oral health awareness and demand for services among low-income populations.[35] Therefore, system improvements will focus on engaging Medicaid-enrolled families at the earliest possible opportunity in their child's growth and dental development through a network of public health assistance programs.

Currently, Iowa has 24 local Title V Child Health (CH) agencies that network with other local public health organizations and community programs (e.g., WIC, Head Start, community health centers) to meet the needs of underserved and Medicaid-enrolled populations. These CH agencies will become the entry sites into preventive dental care and provide a referral network to local dentists.

Dental hygienists within these CH agencies will serve as oral health coordinators. Dental hygienists are oral health prevention experts and are trained in the provision of preventive services, oral health education, and anticipatory guidance for children and families. The most successful programs around the state for getting children into dental care have been those that use a dental hygienist[36]. In these programs, the hygienist is not only providing screenings, education, fluoride varnish applications, and sealants, but is also assisting families with scheduling treatment with local dental offices. The hygienist acts as a liaison for the public health agency, family, and private dental office to ensure completion of care.

The dental hygienists improve cooperation with local dental practice policies and decrease barriers to oral health care for Medicaid-enrolled children by:

- Prioritizing dental treatment needs and facilitating distribution of children among all local dental offices,
- Providing oral health education and guidance to parents and caregivers,
- Providing prevention services to children below age four that are sometimes considered too young to be seen by the dental office,
- Decreasing cancelled and/or "no show" scheduled appointments,
- Providing a single contact point for dental providers to report patient compliance issues, and
- Arranging transportation and translation services if needed.

In addition, the oral health coordinator will rely on other healthcare providers for different levels of primary dental care. Provision of care through the I-Smile Dental Home Proposal can be broken into three levels, based upon disease risk and provider expertise and capabilities. This breakdown allows resources to be used most efficiently—with the dentist providing the most skilled levels of care, counting on other healthcare partners to provide preventive services.

[35] McCunniff, M.D., Damiano, P.C, Kanellis, M.J., and Levy, S.M., "The impact of WIC dental screenings and referrals on utilization of dental services among low-income children." Pediatric Dentistry, 20:3, 19998; pp181-187.

[36] Iowa ABCD Best Practice Manual 2005: Strategies to Improve Oral Health. Oral Health Bureau, IDPH 2005

Level One Care:
Local Title V Child Health (CH) agencies will serve as the point of contact for assuring provision of dental home services. Each month, CH agencies are alerted to all newly enrolled children in the Medicaid program. This existing system will allow these agencies to also serve as the point of entry into the I-Smile system. Following entry into the system, each child will receive an oral screening and risk assessment by the dental hygienist/oral health coordinator. The hygienist can also provide preventive care, such as fluoride varnish application, and provide education and anticipatory guidance for the child and caregiver. If a child has no observable disease and is considered to be at low risk for tooth decay, the child will receive care coordination for regular prevention services and an annual dental examination by a local contracted dentist. Use of this risk assessment and determination of need will reduce the number of children needing to be seen in a dental office—eliminating the need for dentists to provide primary and preventive care for children with no disease.

Other possible system entries can include physicians' offices, community health centers, hospital-based dental clinics, Head Start centers, schools, and preschools. Healthcare providers and staff within these entry points will be able to directly refer children to the local CH agency for prevention services and care coordination. The dental hygienist can be used to educate nursing staff and other public and private healthcare providers about the I-Smile dental home services and system.

Level Two Care*:*
Children that require restorative or other treatment will be referred to a dentist. The CH agency oral health coordinator will work with dental office staff and families to facilitate the transition into the dental office. Dental office staff can be assured that families are aware of the importance of oral health and regular care, as well as the office protocols. Families can be assured that the dental office will be aware of the child's health needs. This correspondence will allow for open communication and decrease the potential of patient non-compliance and "no-shows" for appointments.

Dentists will benefit from having the local CH agency as the intermediate contact for patient appointments and referrals by having the agency screen appointments and provide a place to refer non-compliant patients. This will also provide a means to track and determine willingness of Medicaid-enrolled family caregivers to comply with health care system requirements and become responsible users of Medicaid resources.

Level Three Care*:*
Children with severe decay may require referral to a pediatric dentist or hospital dental program to complete restorative care. The oral health coordinator will facilitate these referrals and retain a list of all available state resources for urgent dental care.

It is anticipated that the provision of enhanced patient and family oral health education and prevention services by the CH agency oral health coordinator will decrease the number of children requiring extensive care and will result in savings to the state in the need for level three services. The tracking of these services by the oral health coordinator will provide a means to determine the rate of level three care given and the expected reductions as children are enrolled and given regular preventive care through the CH agency.

I-Smile will rely on multiple care providers affecting a child's oral health. Because most healthcare providers receive very limited training about oral health, a system must be developed to provide such training at the state and local level. The local oral health coordinator could receive guidance from the Department of Public Health and then provide education and training for local partners.

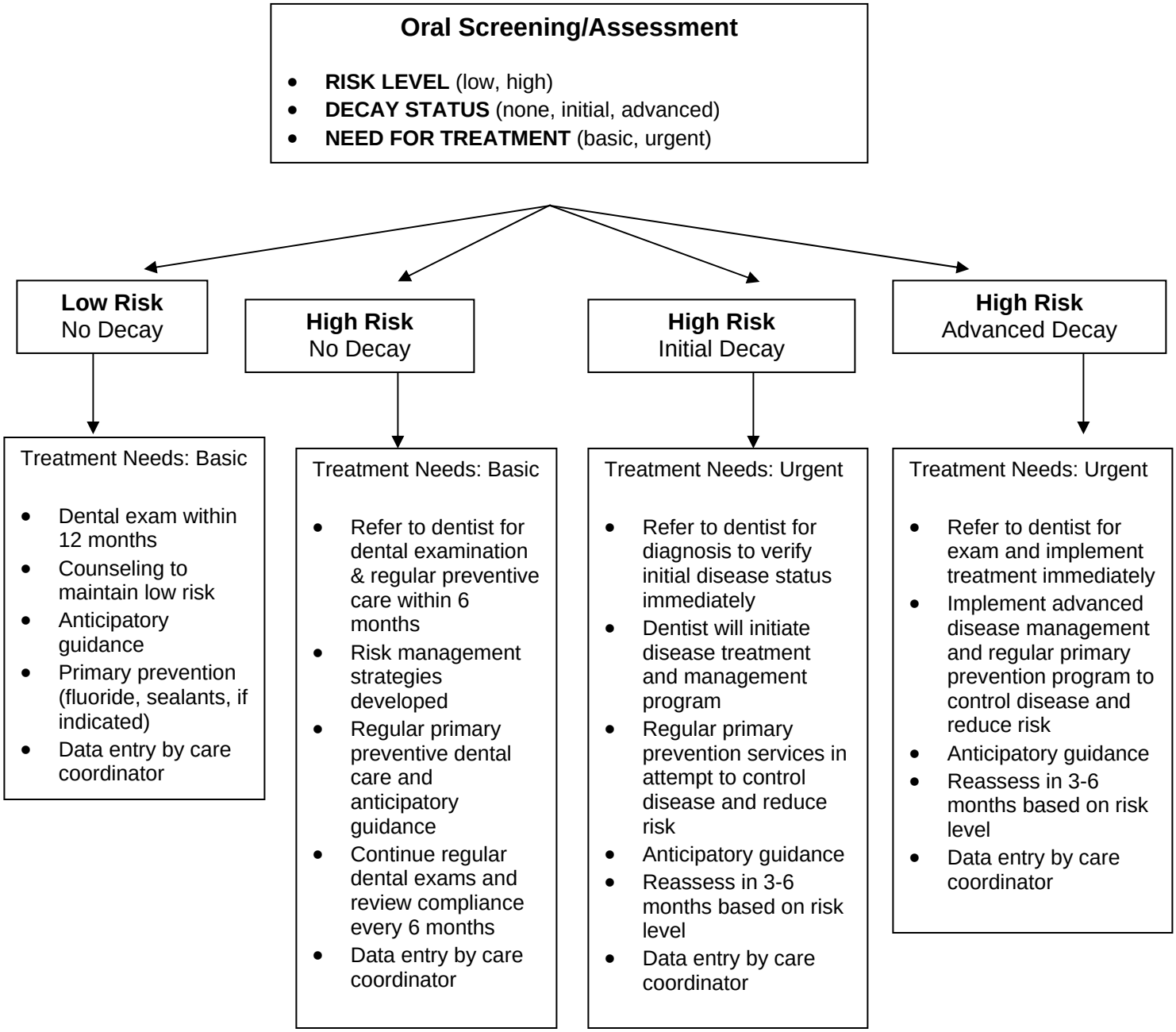
The I-Smile program will also rely on the development of an integrated health system. Primary dental services will be incorporated into existing rural and acute access hospitals (CAH) in cooperation with Iowa's network health systems. These health systems will provide additional resources for dentist recruitment and new dental practice management support in rural communities lacking sufficient dental practice infrastructure. In addition, vertical integration of dental services within hospital systems will provide collaboration opportunities with area dental schools and provide rural rotation opportunities for dental students.

The following two pages provide further illustration of the three levels of care and providers, as well as the process of risk assessment and referral into a dental office for restorative care.

I-Smile Dental Home: Levels of Care

LEVEL ONE	
ENTRY INTO SYSTEM	CARE PROVIDERS
• Identification of children ages 0-12 in Medicaid • Screening for dental problems • Preventive care and anticipatory guidance • Nutritional counseling • Risk assessment • Referral to a dentist for examination and treatment	• General dentists – private practice and community health center • Pediatric dentists • Dental hygienists • MCH and WIC clinic staff • Head Start staff • School nurses • Physicians and staff
LEVEL TWO	
ROUTINE TREATMENT	CARE PROVIDERS
• Simple restorative care	• General dentists – private practice and community health center • Pediatric dentists
LEVEL THREE	
COMPLEX TREATMENT	CARE PROVIDERS
• Care for severe decay and other disease	• General dentists – private practice and community health center • Pediatric dentists • Hospital Outpatient Surgery –pediatric dentists, staff general dentists, and dental student hospital rotations

I-Smile Dental Home: Process for Risk Assessment and Referral[37]



[37] Adapted from Crall JJ, Edelstein BL. Appendix II-Systems Capacity and Integration. www.cthealth.org

Appendix III: Support for improvements to the Dental Support System for Families

Infant oral health program

Key to the I-Smiles program is early identification and prevention of dental disease. Children's teeth begin to erupt within six months of birth. Decay-causing bacteria, generally introduced by the mother or caregiver lacking good oral hygiene, can lead to rapid decay. Appropriate parental education and close monitoring of children's teeth from eruption is critical in avoiding extensive decay and high care cost later on.

Physicians, nurses, WIC, Early Head Start, and Title V Maternal and Child Health Agencies are often the first to see a Medicaid-enrolled child after birth and up to age three. (After age three, dentists are more experienced and comfortable managing children.) These care providers are the first line defense for early prevention and screening. I-Smile will rely on early screening and detection performed by primary care health providers in collaboration with CH agency dental hygienists. These hygienists, working as oral health coordinators, will ensure a smooth transition into the dental care system; providing CH medical staff training and caregiver education needed to target children with necessary prevention services.

In order for this system to operate effectively, physicians and other primary care practitioners will need a support system including training opportunities and appropriate reimbursement levels to encourage oral health related services. Current medical practice place little emphasis on oral health care. While EPSDT recommendations include oral screenings as part of well-child examinations up to age three, most physicians do not routinely observe the mouth during these exams. In addition, current Medicaid exam codes do not identify if oral health screenings are performed.

This proposal recommends Medicaid seek an Administrative Rules change to develop a medical provider service code to track physician oral health screening services.

Most of Iowa's public health agencies and health care programs are staffed by nurses, nurse practitioners, and other mid-level health care providers. These providers are another under-utilized resource that could be used in early oral health screening and topical fluoride application services if Title V Maternal and Child Health Agencies were allowed to bill Medicaid for oral health prevention services rendered by these non-dental providers. Through training opportunities provided by oral health coordinators, mid-level medical providers could serve to extend the oral health safety net for children.

This proposal recommends Medicaid seek an administrative rules change to allow payment to MCH agencies for oral health related screenings and fluoride varnish application for primary care mid-level providers.

Health promotion campaign information *(tobacco campaign information)*

Quitline Iowa Promotion: Media Contractor		Total: $1,044,855
Production of radio advertisements (4 spots x $8,800)	35,200	
Placement of radio advertising ($10,000 p/mo x 8 months)	80,000	
Production of billboards (Ad development = $8,000 + printing 64 boards = $11,200)	19,200	
Placement of billboards (64 boards x 6 months)	160,000	
Production of television advertisements (2 spots x approx. $45,000)	90,000	
Placement of television (7 television markets x 12 months)	660,455	

Iowa Quitline and "Just Eliminate Lies" (JEL) anti-tobacco campaign is considered one of the most effective informational campaigns in the state of Iowa.[38] (See chart below)

	Total people who have called Quitline Iowa for smoking cessation help or information	**Referrals from TV advertising**	**% of incoming non-agency calls who list TV advertising as their referral source**
July	**59**	**3**	**5%**
August	**83**	**7**	**8%**
September	**112**	**7**	**6%**
October	**100**	**2**	**2%**
November	**172**	**23**	**13%**
December	**105**	**13**	**12%**
January 1st-10th at 1pm	**103**	**42**	**41%**

I-Smiles plans to utilize many of the same methods and media promotions to increase public awareness of oral health related diseases and how they impact overall health. Families and caregivers will be instructed on how to contact the Title V Oral Health Coordinator and access early care for their children.

The goal of the dental public health promotions will be to empower families with information on how to prevent childhood oral disease and how to access the dental home system. This will produce the added benefits of public awareness and equipping families with knowledge necessary to reduce the burden of advanced childhood dental disease like baby bottle tooth decay. This will further reduce long-term costs for dental treatment due to neglected disease identified in late stages.

[38] http://www.idph.state.ia.us/tobacco/common/pdf/program_eval.pdf

Fund training programs for dental and other healthcare providers regarding children's oral health

The majority of Iowa's current health care workforce are insufficiently trained and prepared to address the prevention and oral health needs of children between from birth to age three. General dentists are not sufficiently prepared to provide, examinations, prevention or invasive treatment for these children. While physicians, both pediatricians and family practitioners, see children from birth to age three, they often ignore the oral cavity during well-child physical examinations.

These problems are associated with the silo effect and limited focus of current health care provider training programs among other issues such as reimbursement rates for such targeted services as oral health evaluations and prevention services. The I-Smiles proposal contains recommendations to address workforce extension and provider reimbursements rates for oral evaluations and prevention services for young children. However, additional training opportunities will be necessary to equip health care providers with skills necessary to treat very young children.

The I-Smile proposal recommends mandatory continuing education opportunities for dentists and physicians targeting early prevention and examination services for children birth to age three. Iowa's dental and medical schools and their faculty will develop curriculum necessary to accomplish this goal. Both Iowa Boards of Medical and Dental Examiners will review the curriculum recommendations and establish a mandatory minimum requirement for all practitioners engaged or eligible to provide oral health related prevention services of young children.

It is also recommended that Iowa Medicaid Enterprise establish minimum training criteria for health care providers in conjunction with both medical and dental boards. These courses could be offered free or at very reduced rates to providers over the Iowa Communication Network.

Attendance at this continuing education course would be required for dentists to receive any enhanced reimbursement rates and physicians to receive the ability to use the new screening and prevention codes as specified under the I-Smile proposal.

Estimated cost for curriculum development: $120,000
Additional actions required:

- **Establishment of mandatory minimum continuing education criteria by both Iowa Boards of Medical and Dental Examiners**
- **Medicaid Administrative Policy change recognizing minimal continuing education requirements for physicians and dentists participation in I-Smiles enhanced reimbursement rate program**

Appendix IV: Support for Improvements to the Medicaid Dental Program

Increased dentist participation by using a familiar dental insurance carrier

As indicated previously, low dentist participation has been found to be a significant barrier to accessing dental care for Medicaid enrollees. To increase dentist participation, the I-Smile proposal recommends replicating an effective Medicaid model in Michigan that has increased dentist participation in that state. The Michigan model uses a familiar dental insurance carrier, Delta Dental, for the children's Medicaid dental program. Iowa's State Children's Health Insurance Plan (SCHIP), ***hawk-i***, is similar, with the dental benefits covered by private insurance carriers.

During the first year of the Michigan program, "dental care utilization increased 31 percent overall and 39 percent among children continuously enrolled for 12 months, compared with the previous year under Medicaid. Dentists' participation increased substantially, and the distance traveled by patients for appointments was cut in half. Costs were 2.5 times higher, attributable to more children's receiving care, the mix of services shifting to more comprehensive care and payment at customary reimbursement levels." [39]

While the state of Iowa has more counties designated as dental health professional shortage areas, the American Dental Association reports similar conditions existed in the Michigan counties that experienced remarkable access improvements once the improved Medicaid insurance plan was implemented.[40]

An analysis of the Iowa Medicaid and ***hawk-i*** programs in FY2001 shows dental utilization was similar when compared for any child enrolled at any point in the year but was higher when only children enrolled for 11-12 months during the year were considered (46% in Medicaid compared to 57% for ***hawk-i***). The higher socioeconomic status of children in ***hawk-i*** might account for some of the higher utilization rates. However in a study of the Indiana Medicaid dental program, there was no difference in utilization based on income alone.[41] (Indiana SCHIP is a Medicaid expansion so all children are in the same type of Medicaid dental program.)

By using a familiar dental insurance carrier, the belief is that dentists will be more likely to participate. They are familiar with the claims forms and services; they will receive reimbursement closer to their customary charges; and the stigma of Medicaid will be reduced for dental offices and enrollees. In addition, the proposed I-Smile insurance system will require dentists to contract as service providers and will guarantee acceptance of a Medicaid-enrolled child when referred by a CH agency oral health coordinator. This will ensure an adequate network of dentists is available for every Medicaid-enrolled child. Ultimately the responsibility with this program shifts so that the private insurance carrier is responsible for ensuring that they are able to provide enough dentists, so that all children can have a dental home.

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[39] Eklund SA, Pittman JL, Clark SJ. Michigan Medicaid's Healthy Kids Dental program: an assessment of the first 12 months. J Am Dent Assoc. 2003 Nov;134(11):1509-15.

[40] Branson, JB. Guay, AH. Comments on the Proposed Pediatric Oral Health Therapist. Journal of Public Health Dentistry, Vol. 65, No.3, Summer 2005, pp 123-127.

[41] Hughes RJ, Damiano PC, Kanellis MJ, Kuthy R, Slayton R. Dentists' participation and children's use of services in the Indiana dental Medicaid program and SCHIP: assessing the impact of increased fees and administrative changes. J Am Dent Assoc. 2005 Apr;136(4):517-23.

Cost estimate for using a familiar dental insurance carrier

Based on a previous analysis, Medicaid paid $5.80 per enrollee/per month for all children's dental services in FY 2003 resulting in a total cost of $14.4 million for dental care for children. [42] (This includes children through age 18, and does not include dental care provided in hospital operating rooms.)

During CY 2005, there was an average of 133,000 children ages 0-12 enrolled in Medicaid each month (1,589,903 total age 0-12 enrolled during the year). The monthly enrollment of children 0-12 varied from 129,600 to 134,400 during the year. Using the average of 133,000, the cost for Medicaid dental services for children ages 0-12 would have been $9.2 million.

*Higher bound cost estimate based on the Iowa **hawk-i** program*

Iowa's SCHIP (***hawk-i)*** program pays private carriers approximately $16 pm/pm to provide comprehensive dental care, excluding orthodontics, to enrolled children. The ***hawk-i*** program has a $1,500 annual maximum. Because Medicaid rules do not allow an annual maximum, and some medically necessary orthodontic coverage must be provided, a higher bound pm/pm must be estimated at $17 per member/per month (pm/pm).

Low estimate= $17 pm/pm 1,589,903 covered months during the year=$27 million

Based on current information, the estimated cost of this program utilizing Delta Dental of Iowa's broad dental network (representing approximately 90% of Iowa dentists) and assuming no maximum annual benefit is $28.8 million annually. If orthodontia benefits are included, the estimated cost is $37 million annually. This pricing includes projected benefit costs under a ***hawk-i*** look-alike program and administrative expenses.

Delta Dental would also offer to modify the current provider network to support savings available by limiting access to specialists. Limiting access to general practioners only (with the exception of pediatric dentists) would save the program $494,000 annually.

Estimated Total Annual Cost: $28, 800,000

[42] Damiano PC, Momany ET, Flach SD, Jones M, Carter K. *Dental care: access, utilization and costs for children in the **hawk-i** program*. Final report to the Iowa Department of Human Services. Public Policy Center, University of Iowa, Iowa City, IA. March 2005.

Physician screening/fluoride varnish program

North Carolina's "In the Mouth of Babes" program[43] has demonstrated that physicians can form an effective prevention and detection network if appropriately trained and adequately reimbursed. North Carolina combines oral health screening, parental education, and fluoride varnish applications into one payable service code and charge. This code is reimbursed at a rate from $53 to $61 per visit up to 5 visits per year. Current Iowa Medicaid rates for physician office fluoride varnish application are from $11.64 to $13.58 with no separate rate or code for dental screening.[44]

The most effective early disease prevention opportunity for high-risk Medicaid children occurs between first tooth eruption at 6 months to age 3 when general dentists do not traditionally provide dental services. Physicians along with dental hygienists associated with Title V CH programs will be the most effective means to provide early screening and prevention services. This proposal recommends Medicaid increase physician reimbursement rates to $20.00 for oral health screenings and $18.00 for fluoride varnish applications.

Commercial utilization rates among insured consumers for dental services are estimated at 65 percent according to Delta Dental of Iowa. Annual well-child evaluations with oral health screenings should be performed twice or every six months per EPSDT and AAPD recommendations. Current fluoride varnish applications are permitted up to three times a year.

The I-Smile population of Medicaid-enrolled children ages 3 and below in FY 2005 was approximately 57,762. A 65 percent utilization would result in 37,545 of these children receiving a dental screening and fluoride varnish application.

Estimated annual Medicaid costs: $3,529,230 **includes current annual Medicaid EPSDT exam oral screening and physician fluoride varnish payments*

Increase funding to strengthen the state Title V CH database system for tracking patient care coordination and appointments

Iowa's Title V Child Health Agencies use the Child and Adolescent Reporting System "CAReS" to report care coordination and primary and prevention health care services.[45] The system currently collects some levels of oral health care information; however, it is essentially a medical service tracking system and does not separate service populations based on source of funding.

For the oral health service enhancements necessary for the I-Smiles program, CAReS will need upgrading to capture oral health services, care coordination, tracking of all Medicaid-enrolled children ages 12 and below, and monitoring periodicity and establishment of dental home relationships with private practice dentists and other dental practice models. In addition, Title V agencies will need trained service and administrative staff on the optimum use of the upgrades.

Estimated costs for CAReS upgrades: $200,000 and agency staff training: $10,000

Total upgrade and training costs: $210,000

[43] http://www.ncafp.com/site3/web/imb/index.html (Accessed February, 2006)
[44] Iowa Department of Human Services
[45] Iowa Department of Public Health/ Family Services Bureau "CAReS" User Manual, 2001

Support for covering periodontal services for adults in Medicaid

Reinstating the coverage of periodontal services for adults in Medicaid is a relatively low-cost approach to improve the oral health of new mothers and ultimately that of their child. According to the American Academy of Periodontology[46], untreated gum disease can:

- Contribute to the development of heart disease, the nation's leading cause of death,
- Increase the risk of stroke,
- Increase a woman's risk of having a preterm, low birth weight baby[47],[48],
- Pose a serious threat to people whose health is compromised by diabetes, respiratory diseases, or osteoporosis.

In addition, there is evidence that the oral health of new mothers has a direct affect on the long-term oral health of her child due to the transmission of bacteria between the mother and infant shortly after birth.[49] The child's oral bacterial "flora" is established as the child interacts, primarily with the mother, through kissing, tasting food and other activities in which the mother's oral bacteria come into contact with the child's mouth. This time period is often called the "window of infectivity".[50] During this time, the bacteria that cause dental decay and other oral health problems are spread from the mother to the child. The better the oral health of the mother, the less disease-causing bacteria is spread to the child, improving the child's chances of starting off life with good oral health and fewer needs for significant, costly dental care.

[46] American Academy of Periodontology, Mouth Body Connection. http://www.perio.org/consumer/mbc.top2.htm.
[47] Jeffcoat MK, et al. Periodontal Disease and Preterm Birth: Results of Pilot Intervention Study. Journal of Periodontology August 2003 (Vol 74, No 8).
[48] Lopez NJ, Da Silva I, Ipinza J, Gutierrez J. Periodontal therapy reduces the rate of preterm low birth weight in women with pregnancy-associated gingivitis. J Periodontol. 2005 Nov;76(11 Suppl):2144-53. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=16277587&query_hl=3&itool=pubmed_docsum.
[49] Tanzer J, Livingston J, Thompson A. The Microbiology of Primary Dental Caries. http://www.nidcr.nih.gov/NR/rdonlyres/73FABD84-9B93-461C-934F-21E2698D8A77/0/Jason_Tanzer.pdf.
[50] Caufield PW, Cutter GR, Dasanayake AP. Initial acquisition of mutans streptococci by infants: evidence for a discrete window of infectivity. J Dent Res. 1993 Jan;72(1):37-45. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=0008418105&dopt=Citation

Appendix V: Support for implementing recruitment and retention strategies

Implementing recruitment and retention strategies for the dental workforce

Because of the shortage and geographic maldistribution of dentists and dental hygienists in the state, the I-Smile proposal will rely on establishing a student loan repayment program to enhance the current dental care system. This system will help direct future dental providers to underserved areas of the state and will increase available providers where they are most needed.

It is important that a student loan repayment plan include specific guidance and expectations for participating dentists to include significant numbers of Medicaid and *hawk-i* enrolled children in their practices. The Association of State and Territorial Dental Directors see the acceptable range of annual Medicaid billing as greater than $10,000 dollars or total dental practice Medicaid volume greater than 15 percent.

Student loan repayment agreements must include such terms as acceptable standards of compliance, not just the location of a practice in an underserved community.

Estimated costs: $250,000 to sponsor up to 3- 4 graduating dental and dental hygiene students as loan repayments up to $25,000 annually for three years.

Work with rural health system hospitals to determine their ability to create dental clinics and increase operating room services for children's dental services

Iowa's rural and critical access hospitals (CAH) in cooperation with Iowa's network health systems have started a process that envisions a vertical integrated primary care system that incorporates primary dental care services into available space within rural hospitals in underserved communities. The goal is to ensure that an adequate number of dental professionals are recruited to and practice in rural areas.

The health systems will establish and manage new hospital-based dental clinic sites that will be designed for replication on a state-wide basis. Operational issues will be managed on a system level. Recruitment/retention, billing/collections, purchasing and dental clinic set up will be uniform throughout the state. There will be an integration of dental services and primary care services within rural communities in collaboration with Migrant and Community Health Centers providing a referral system and a dental home for all children. These systems will coordinate services through the care coordination and referral linkages within Maternal and Child Health/Title V Agencies as part of the I-Smiles network.

The vertical integration hospital-based dental program will also establish collaboration with area dental schools to provide rural dental student and resident rotation opportunities in return for recruitment potential of graduating dentists.

No Estimated Cost to State